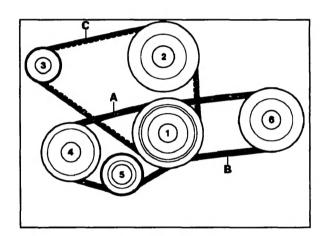
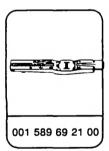
# Engine 102 with multiple belt drive

Location	Tension (KG) New V-belt	Tension (KG) Used V-belt
Air conditioning compressor	50	40-45
Power steering pump	50	40-45
Generatorcoolant pump	30	20-25
	Air conditioning compressor  Power steering pump	New V-belt  Air conditioning compressor 50  Power steering pump 50

- 1 Crankshaft
- 2 Coolant pump
- 3 Generator
- 4 A/C compressor
- 5 Tensioning pulley
- 6 Power steering pump
- Belt A A/C compressor
- Belt B Power steering pump
- Belt C Coolant pump - generator



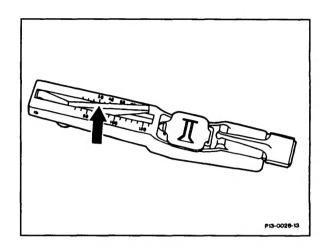
# Special tools



#### Note

Refer to operating instructions for use of measuring instrument.

The specified tensioning values refer to the KG scales on the instrument (arrow).



## Checking condition of V-belt

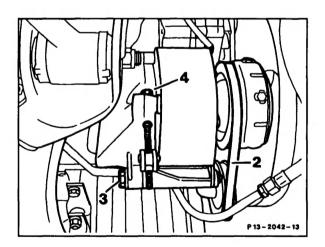
Replace cracked or worn V-belts.

## **Tensioning**

 Before tensioning, remove lower engine compartment panel.

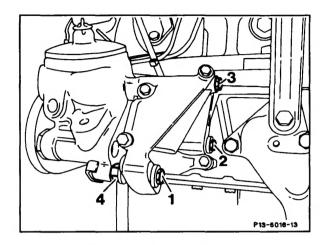
#### V-belt A Air conditioning compressor

- Loosen bolt (3).
- Tension V-belt with adjusting screw (4).
- Tighten bolt (3).



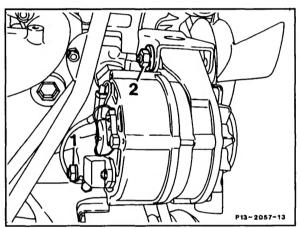
#### V-belt B Power steering pump

- Loosen bolts (1, 2, and 3).
- Tension V-belt with adjustment gear (4).
- Tighten bolts (1, 2, and 3).

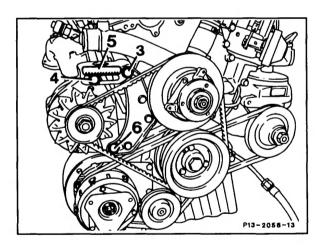


## V-belt C Generator--Coolant pump

Loosen nuts (1 and 2) as well as bolt (3).



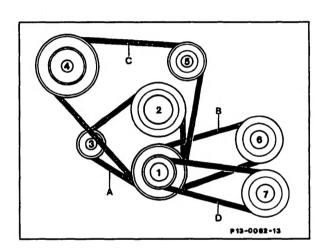
- Tension V-belt with adjusting screw (4).
- Tighten nuts (1 and 2), as well bolt (3).
- Install lower engine compartment panel.



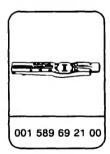
Engine 110

V-belt	Location	Tension (KG) New V-belt	Tension (KG) Used V-belt
A	Generatorcoolant pump	30	20-25
В	Power steering pump	50	40-45
С	Air conditioning compressor	50	40-45
D	Secondary air injection pump	30	20-25

- 1 Crankshaft
- 2 Coolant pump
- 3 Generator
- 4 A/C compressor
- 5 Tensioning pulley
- 6 Power steering pump
- 7 Secondary air injection pump



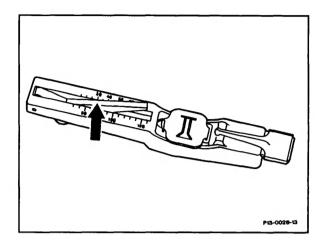
## Special tools



#### Note

Refer to operating instructions for use of measuring instrument.

The specified tensioning values refer to the KG scales on the instrument (arrow).



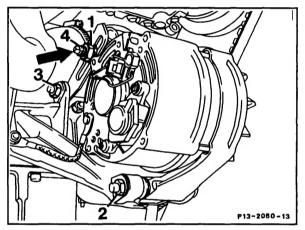
# Checking condition of V-belt

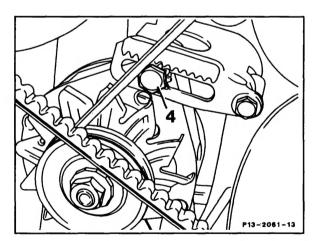
Replace cracked or worn V-belts.

#### **Tensioning**

#### V-belt A Generator--coolant pump

- Loosen nuts (1, 2 and 3).
- Tension V-belt at hexagon or on engines with air conditioning compressor at 6 mm square of adjustment bolt (4).
- Tighten nuts (1, 2 and 3).



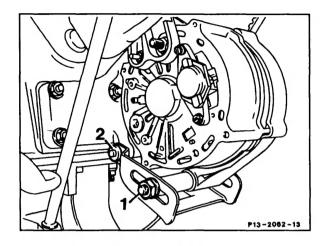


#### V-belt A Generator 80 A--coolant pump

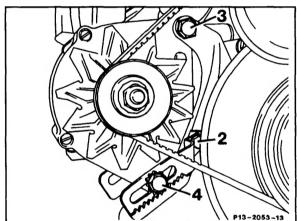
Loosen nut (1).

#### Note:

Bolt (2) is installed from the rear of the generator on vehicles built starting July 1984.

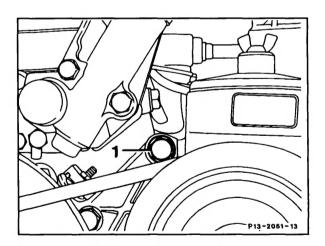


- On vehicle built up to July 1984, loosen bolt (2) from underneath the engine.
- On vehicle built starting July 1984, loosen bolt (2) from back of generator.
- Loosen bolt (3).
- Tension V-belt on hex of adjusting screw (4).
- Tighten nut (1) and bolt (3).
- Tighten bolt (2).

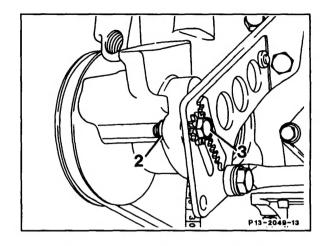


#### V-belt B Power steering pump

Loosen bolt (1) on face of power steering pump.

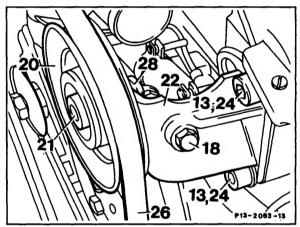


- Loosen nut (2).
- Adjust V-belt with adjustment bolt (3).
- Tighten nut (2) and bolt (1).



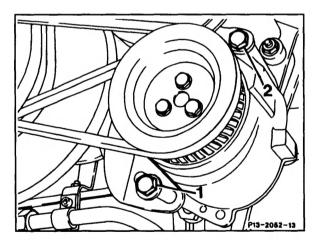
## V-belt C Air conditioning compressor

- Loosen necked down bolt (21).
- Adjust V-belt with adjusting bolt (18).
- Tighten necked down bolt (21) to 25 Nm.



#### V-belt D Secondary air injection pump

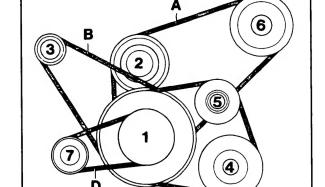
- Loosen mounting bolts (1 and 2).
- Adjust V-belt by swiveling secondary air injection pump outward.
- Tighten fastening bolts (1 and 2).



## **Engine 116 117**

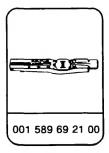
V-belt	Location	Tension (KG) New V-belt	Tension (KG) Used V-belt
A	Coolant pump - power steering pump1)	30	20-25
В	Generator	35	30-35
С	Air conditioning compressor	50	40-45
D	Secondary air injection pump	30	20-25

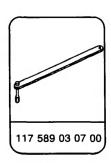
Double V-belt



- 1 Crankshaft
- 2 Coolant pump
- 3 Generator
- 4 A/C compressor
- 5 Tensioning pulley
- 6 Power steering pump
- 7 Secondary air injection pump

## Special tools





P13-0063-13

#### Note

Refer to operating instructions for handling of measuring instrument.

The specified tensioning values refer to KG scale of measuring instrument (arrow).

### Checking condition of V-belts

Replace cracked, scorched or worn V-belts.

**Note:** If one of the two V-belts of the double belt drive has to be replaced due to wear, both V-belts must always be replaced.

Only belts from one manufacturer may be installed together.

V-belts are supplied only in sets as spare parts.

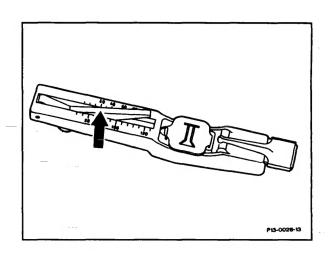
#### Adjusting

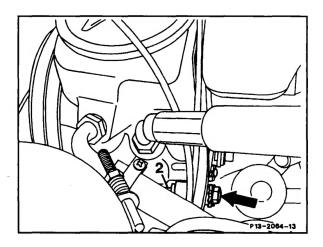
# V-belt A Coolant pump - Power steering pump

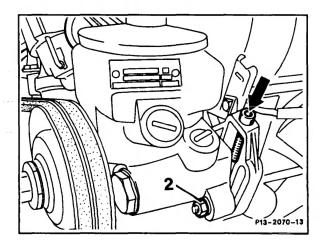
Loosen nuts (1,2 and 3 [fulcrum]).

Adjust V-belt with adjustment screw (arrow).

Power steering pump carrier (1st version)

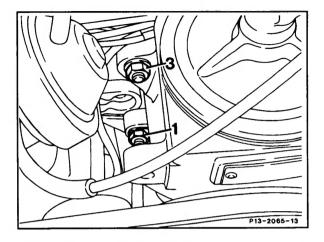






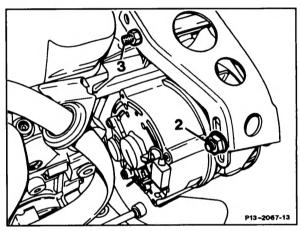
Power steering pump carrier (2nd version)

Tighten nuts (1, 2 and 3).

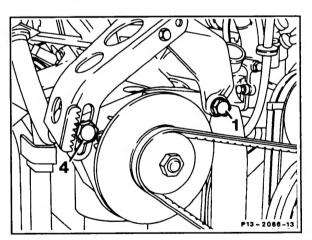


#### V-belt B Generator

Loosen fastening bolt (1) and nuts (2 and 3).



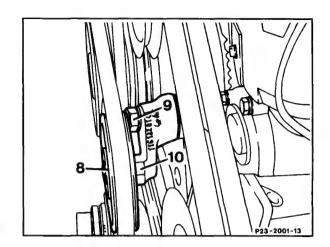
- Adjust V-belt with adjustment bolt (4).
- Tighten fastening bolt (1) and nuts (2 and 3).



#### V-belt C Air conditioning compressor

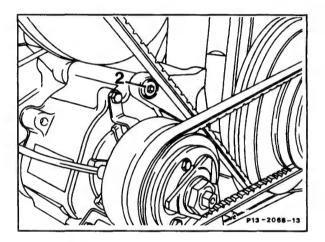
- Loosen fastening bolt (9).
- Adjust the V-belt by turning the tensioning pulley (8). To do this place a right angle open end wrench (22 mm) on the flat surface (10).
- Tighten fastening bolt (9).

**Note:** As of November 1985 the mounting screw (9) is designed as a hex. socket screw. Use special tool 117 589 03 07 00.

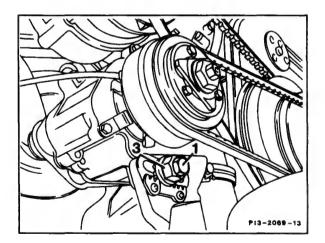


# V-belt D Secondary air injection pump

Loosen fastening bolts (1 and 2).



- Adjust V-belt with adjustment wheel (3).
- Tighten fastening bolts (1 and 2).

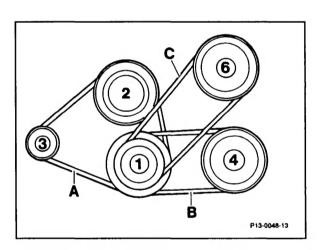


## Engine 616 617

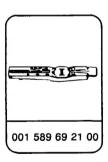
Engine	)	616, 617.91	617.95	616, 617.91	617.95
V-belt	Location	Tension (KG) New V-belt	Tension (KG) New V-belt	Tension (KG) Used V-belt	Tension (KG) Used V-belt
A	Generator - coolant pump	50	301)	40-45	20-251)
В	Air conditioning compressor	50	50	40-45	40-45
С	Power steering pump	50	50	40-45	40-45

Double V-belt

- 1 Crankshaft
- 2 Coolant pump
- 3 Generator
- 4 A/C compressor
- 6 Power steering pump



## Special tools



#### Note:

Refer to operating instructions for handling of measuring instrument.

The special tension data refer to KG scale of the measuring instrument (arrow).

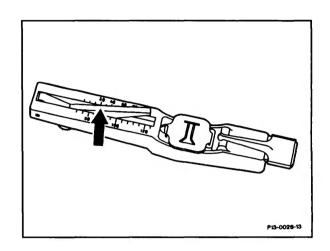
#### Checking condition of V-belt

Replace cracked, scorched or worn V-belts.

**Note:** If one of the two V-belts of the double belt drive (engine 617.95) has to be replaced due to wear, both V-belts must be replaced.

Only belts from one manufacturer may be installed together.

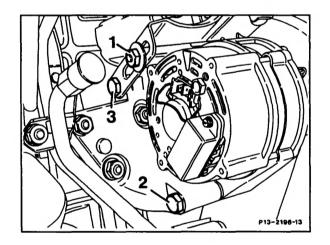
V-belts are supplied only in sets as spare parts.



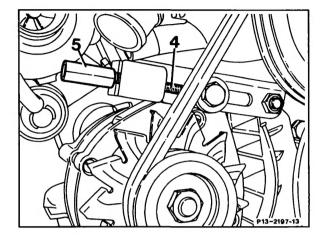
# **Adjusting**

#### V-belt A Generator - Coolant pump

Loosen nut (1) and bolts (2 and 3).

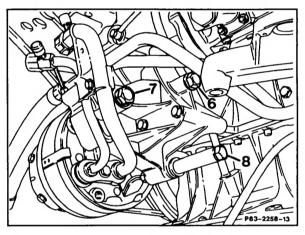


- Adjust V-belt with nut (5).
- Tighten nut (1) and bolts (2 and 3).
- Then keep turning nut (5) for approx. 1/4 to 1/2 turn (until tight).

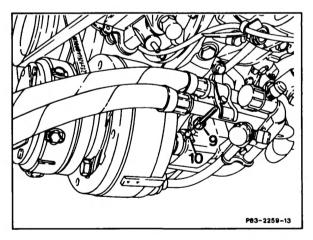


## V-belt B Air conditioning compressor

Loosen bolts (6, 7 and 8).

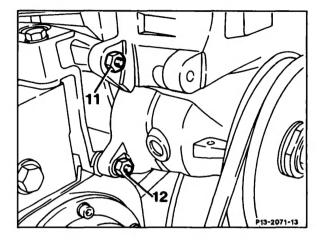


- Adjust V-belt with nut (9) of tensioning bolt (10).
- Tighten bolts (6, 7 and 8).



## V-belt C Power steering pump

Loosen nuts (11, 12 and 13).



- Adjust V-belt with clamping bolt (14).
- Tighten nuts (11, 12 and 13).

